UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466

September 29, 2000

Ref: 8EPR-EP

Ms. Sarah Bransom, YCR
Bison Management Plan EIS Team
Yellowstone National Park
P.O. Box 168
YNP, Wyoming 82190

VIA FAX AND MAIL

RE: U.S. Environmental Protection Agency's (EPA) Comments On The Final Environmental Impact Statement For The Interagency Bison Management Plan For The State Of Montana And Yellowstone National Park (FEIS)

Dear Ms Bransom:

EPA appreciates the opportunity to submit its comments to the National Park Service (NPS) on the above referenced project and also appreciates the considerable effort the federal agencies involved have put forth in the publication of this FEIS. EPA's role in commenting on National Environmental Policy Act (NEPA) documents is many-fold. Section 309 of the Clean Air Act (CAA) directs EPA to review and publicly comment on any environmental impacts of a major federal action. In addition, every federal agency, including EPA, is directed to comment on NEPA documents in which issues are presented for which that particular agency has jurisdiction by law or by expertise. Section 309 of the CAA also directs EPA to determine whether environmental impacts associated with the action are unsatisfactory from the standpoint of public health or welfare or environmental quality and assess adequacy of the document.

Based upon our initial review, performed under our aforementioned responsibilities, the implementation of the preferred alternative will not avoid significant environmental impacts. Most of our concerns remain. The FEIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment.

EPA's major concerns are presented in summary form below and then in a more detailed format in the pages that follow. EPA's detailed concerns are presented in the following format. Our DEIS comment is presented first, then if a response was provided in the FEIS, it is presented below our original comment in italicized font, and then in bold font our current recommendation based upon review of the FEIS. EPA also has new concerns identified in the FEIS.

EPA Concerns:

- The preferred alternative does not commit to a joint federal and state decision making process for the establishment of Special Management Areas (SMAs).

- The Purpose and Need are not fully met by the preferred alternative. The bison management issue addressed in this FEIS is one of national significance and therefore warrants a significant federal role in decision making in the management of bison and cattle on public lands adjacent to the Park.

- Not all FEIS objectives will be met by the preferred alternative.

- The FEIS improperly segments NEPA.

- EPA supports the National Research Council recommendations for vaccination of cattle as a less dramatic approach to management of brucellosis transmission from bison and elk to cattle.

- EPA continues to recommend APHIS conduct a NEPA review on its brucellosis-free status policy.

- EPA recommends the use of independent science review to guide bison/elk management decisions.

EPA is available to answer any questions that the NPS may have about our comments. Please contact Jim Berkley at (303) 312-7102 for this purpose.

Sincerely,

Original Signed by Brad Crowder for

Cynthia Cody
Chief of NEPA Unit
Ecosystems Protection Program

enclosures

Detailed Comments:

1. The discretionary culling of Yellowstone bison using lethal measures on public lands in instances when other alternatives might serve the same purpose (reduction of risk of the spread of brucellosis to Montana livestock) is an environmental impact that could be avoided. One example is that of the Montana state veterinarian making the decision on the time frame of bison removal from public lands and when hazing should end and lethal force will be used to remove bison.[1] Establishment of special management areas (SMA) will be left to the discretion of the state of Montana as specified by Montana law.[2] It is EPA's understanding that this will mean the SMAs will be established at the discretion of the Montana Board of Livestock. If SMAs are to be a real and viable part of the preferred alternative, there should be a commitment to establish (acquire land) and determine the location of these areas. The establishment of these areas should be determined by state and federal decision makers at least. The ideal is to have an open process that includes all stakeholders.

   The interpretation is not correct. The decisions to establish SMAs and to adopt management frameworks appropriate for each SMA would be made by all of the agencies and those decisions would be documented in the record of decision. Flexibility in the operation of SMAs is essential to successfully accomplish the purpose and need for this environmental impact statement. Therefore, the Montana state veterinarian would be authorized to exercise some discretion, but only within the framework defined by the record of decision. (Volume two, page 132, FEIS)

   Page 89 of the FEIS says, "Pursuant to statutory and regulatory requirements, the establishment, modification, or revision of SMAs may require the approval of the state of Montana as specified by Montana law." Then on page 90 of the FEIS, the document says, "However, as noted above, Montana approval may be required to establish SMAs to allow bison onto these lands." "These lands" refers to lands now under the jurisdiction of the Gallatin National Forest. From these FEIS quotes, it still appears that EPA's interpretation is correct.

   The establishment of SMAs would require the cooperation of the state and federal agencies with responsibility for bison management under both state and federal law. According to the state, in order to ensure the marketability of Montana cattle, the Montana state veterinarian must retain the discretion to exercise sound professional judgement in response to specific situations. The federal agencies believe many of the alternatives in the environmental impact statement preserve the state veterinarian's discretion to react in specific situations while best maintaining a wild, free-roaming herd of bison. (Volume two, page 310, FEIS)

   The response above does not clearly lay out the decision making process and authorities for establishment of SMAs. The above quoted response says that, "The establishment of SMAs would require the cooperation of the state and federal agencies..." It is not clear if this

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[1]National Park Service, Draft Environmental Impact Statement For The Interagency Bison Management Plan For The State Of Montana And Yellowstone National Park. 1998. 107 pp.

[2]Ibid at 58 pp.

required cooperation means joint decision making. It would be helpful to make clear in the Record of Decision (ROD), the precise process envisioned for making these decisions. Additionally, because the quoted sections above say that the establishment of SMAs "may" require state approval, it is not clear whether this is a part of the preferred alternative. How is the reader to know without a commitment in the FEIS. One would have to wait until the ROD is published before knowing.

2. The FEIS has addressed our concerns on tribal consultation.

3. The preferred alternative does not meet the first part of the stated purpose under the purpose and needs statement for this DEIS: "The purpose of the action is to maintain a wild, free-ranging population of bison..." Based upon EPA's reading of the act which created the NPS and management policies presented in the DEIS, the NPS has a charge "to conserve...the wildlife in parks and to provide for enjoyment of the same in such manner, and by such means as will leave them unimpaired for the enjoyment of future generations," and to manage the resource in a regional context.

NPS' charge is stated in the act which created it in 1916: "to conserve the scenery and the natural and historic objects and the wildlife in parks and to provide for enjoyment of the same in such manner, and by such means as will leave them unimpaired for the enjoyment of future generations." Additional text in the DEIS states, *Several recent planning and policy documents, including the "Yellowstone National Park Master Plan" (NPS 1974), the "Yellowstone National Park Statement for Management" (NPS 1991), and the "National Park Service Management Policies" (NPS 1988), require that park planning be accomplished in a* ***regional*** *context (emphasis added). This latter concern is summarized in the "Management Policies" as follows: "Recognizing that parks are integral parts of larger regional environments, the National Park Service will work cooperatively with others to anticipate, avoid, and resolve potential conflicts, to protect park resources, and to address mutual interests in the quality of life for community residents, considering economic development as well resource and environmental protection."*[3]

The statements above not only include management of the resource to protect the economic development outside of the park (the Montana livestock industry), but also to protect the federal resource outside of the park in this regional context. In the preferred alternative, it is stated that, "Bison located outside the park in the west boundary area would be hazed back into the park in the spring, 30 to 60 days before cattle occupy the area. The exact number of days, between 30 and 60, would be at the discretion of the state veterinarian. Those bison that could not be hazed back into the park would be shot."[4] This is a decision that should not be made by a state official solely, especially when it comes to Yellowstone bison on public lands. The NPS should play a substantive role in this decision, especially when it comes to managing a unique environmental resource such

[3]Ibid at 31 pp.

[4]Ibid at 107 pp.

as the remnant herd of Yellowstone bison.[5]

Additional support for having both federal and state roles in the management of Yellowstone bison on public lands outside of the park is found in both the NRC and DEIS reports, where the national significance of this issue is emphasized: The NRC report states, when discussing reducing the risk of transmission of brucellosis, "Those approaches [the approaches to brucellosis transmission reduction present in the NRC report] could be used individually or combined, depending on the degree of control determined to be in the best national interest."[6] The DEIS also highlights the national significance of this issue by stating, "Management of bison in the Yellowstone area has become a matter of national attention and interest."[7] This national significance seems especially critical considering the unique character of this herd, as reflected in their heritage, and their key role with the general public who associates the park with the bison.

EPA's concerns remain the same in the FEIS with the exception of the number of days required prior to hazing has now be set at 45.

4. The preferred alternative does not meet the second part of the stated purpose under the purpose and needs statement for this DEIS: "...address the risk of brucellosis transmission to protect economic interest and viability of the livestock industry in the state of Montana." The NRC report supports the notion that the control of brucellosis in the GYA can not be achieved by implementation of the preferred alternative. In the NRC report, a paragraph on page 80 discusses transmission of Bison to Cattle and on page 81, Elk to cattle. Both animals carry B. *abortus*. The "bison to cattle" section states, "under natural conditions, the risk of transmission from bison to cattle is very low, but the appropriate quantitative risk assessments have not been done. The "Elk to Cattle" paragraph says, "Transmission of B. *abortus* from elk to cattle is unlikely in a natural setting. How is this different from the statement above about "bison to cattle?" Neither risks are quantified. The report states that brucellosis has been transmitted from bison to cattle under experimental conditions. The report also says, "the ability of brucellae to be transmitted from elk to cattle under experimental conditions has been proved."[8] The information on bison and elk seems to be the same in these instances.

The preferred alternative does not make sense in that it only focuses on bison to control the spread of B. *abortus* to Montana cattle. There is no scientific evidence presented in the NRC report that the risk of bison transmitting brucellosis to cattle is greater than that of elk in the GYA. The NRC

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[5]Isenberg, Andrew C., The Return of the Bison: Nostalgia, Profit, and Preservation. 1997. Environmental History. V2, n2, 179 pp.

[6]National Research Council, Brucellosis in the Greater Yellowstone Area. 1998. 7 pp.

[7]National Park Service, Draft Environmental Impact Statement For The Interagency Bison Management Plan For The State Of Montana And Yellowstone National Park. 1998. 167 pp.

[8]National Research Council, Brucellosis in the Greater Yellowstone Area. 1998. 80 pp and 81 pp.

report states, "the distributions of the two species overlap broadly in the GYA on the summer range, where they are more dispersed, and on the winter range, where they are concentrated."[9]

EPA was unable to locate a response to this comment, thus EPA's comment remains the same. For additional detailed comments on elk to cattle transmission, please see our response under comment 6 below.

5. There are nine objectives that the interagency team agreed would be used to help determine reasonableness of each alternative, and would be applied to the selection of a preferred alternative. Based upon information in the NRC report, objectives 4 and 5 can not be met. This supports the notion that a reasonable alternative has not been selected that can meet the stated purposes of the DEIS. Objective 4 states, "Commit to the eventual elimination of brucellosis in bison and other wildlife[10]..." The NRC report states, "Because neither sufficient information nor technical capability is available to implement a brucellosis-eradication program in the GYA at present, eradication as a goal is more a statement of principle than a workable program. The best that will be possible in the near future will be reduction of the risk of transmission of B. abortus from wildlife to cattle."

Objective 5 states, "Protect livestock from the risk of brucellosis..."[11] The NRC report makes several statements that support the need to address brucellosis reservoirs other than bison: "Many more elk than bison are present in the GYA." "The risk of bison or elk transmitting brucellosis to cattle is small, but it is not zero." "If infection rates are not substantially reduced in elk, reinfection of bison is inevitable."[12] "Any vaccination program for bison must be accompanied by a concomitant program for elk."[13] Based on these statements and the information presented elsewhere in the NRC report and mentioned in our comments above, EPA does not believe that the preferred alternative will substantially meet objective 5.

Objective 5 states that each alternative must "protect the state of Montana from risk of reduction in its brucellosis status" (DEIS, p. 29). This objective was interpreted by the agencies to mean that each alternative must maintain Montana's brucellosis class-free status as conferred by APHIS. The agencies agreed that every alternative in the environmental impact statement must meet every objective in order to be considered (DEIS, p. 51). All the agencies, including APHIS,

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[9]National Research Council, Brucellosis in the Greater Yellowstone Area. 1998. 83 pp.

[10]National Park Service, Draft Environmental Impact Statement For The Interagency Bison Management Plan For The State Of Montana And Yellowstone National Park. 1998. 29 pp.

[11]National Park Service, Draft Environmental Impact Statement For The Interagency Bison Management Plan For The State Of Montana And Yellowstone National Park. 1998. 29 pp.

[12]National Research Council, Brucellosis in the Greater Yellowstone Area. 1998. 5 pp.

[13]National Research Council, Brucellosis in the Greater Yellowstone Area. 1998. 8 pp.

agreed that alternative 7 met objective 5. The modified preferred alternative contains additional measures that would assist in further protecting Montana's brucellosis class-free status. APHIS has committed to consult with states that threaten to pose sanctions against Montana and convince those states that sanctions are unwarranted. Under this alternative, APHIS would also add measures to certify particular cattle herds that might occupy the impact area as brucellosis-free. Please refer to responses in this volume to "Livestock Operations: Cattle – Brucellosis Class-Free Status," particularly responses under issue 9. (Volume 2, page 398, FEIS)

EPA did check page 29 of the DEIS, and Objective 5 is, "Protect livestock from the risk of brucellosis." Objective 6 is, "Protect the state of Montana from risk of reduction in its brucellosis status." EPA agrees that the DEIS and FEIS attempt to meet Objective 6. However, EPA still asserts that Objective 5 can not be met and supports its assertions as stated in our original comment. EPA also notes that the FEIS states that the agencies now do not believe that objective 4 is within the scope of this document (Volume two, page 397, FEIS). However, on page 44 of the FEIS, it is still listed as an objective. This is quite confusing to the reader.

6. The DEIS improperly segments the NEPA process. It is stated in the DEIS that this effort will be to control the Montana problem. It is true that government agencies can segment the National Environmental Policy Act (NEPA) process under certain circumstances. However, when that segmentation is made, the segment must fit into the larger NEPA effort of which it is or will be a segment. The DEIS states that the Greater Yellowstone Interagency Brucellosis Committee (GYIBC) is working on a comprehensive plan for controlling brucellosis in the GYA (which will include Idaho and Wyoming). The approach in this DEIS must fit into the larger plan that will be developed by the GYIBC. The GYIBC plan will have to address elk as a reservoir of B. *abortus*. Because this DEIS does not address elk and does not fit as a piece of the future GYIBC plan, EPA believes that the preferred alternative is an improper segmentation of NEPA.

A complete discussion of brucellosis in elk and other ungulates is presented in the final environmental impact statement (see volume1, "Purpose of and Need For Action: Background – Brucellosis in Cattle and Bison (Brucellosis in Other Wild Ungulates)" and in this volume, "Wildlife: Brucellosis in Other Wild Ungulates." (Volume two, page 283, FEIS)

The concern that relates to segmentation is not addressed by this response. The NRC report and the FEIS, Volume two, page 397 say that elk may cause reinfection of bison. Thus to avoid segmentation, elk not only need to be a part of the analysis, they need to be taken into account as a part of the comprehensive plan. The level that they are taken into account may be a point of discussion, but there should be enough analysis and information, so that their contribution to the problem of transmission is taken into account. Based upon unquantifiable risk of transmission from bison to cattle and elk to cattle, the FEIS presents its preferred alternative to use lethal measures for the bison reservoir, but not the elk reservoir. After review of the FEIS, EPA maintains its original DEIS recommendation.

EPA is concerned with numbers used to evaluate qualitative risk. An example is provided below. The FEIS indicates that there are about 18,000 elk and about 2000 bison in the area of concern. The estimate of the seropositive rate for elk in the area of concern is 1% to 2% (Volume two, page 397, FEIS). The FEIS estimates that the seropositive rate for bison in

some cases is 50% and of those tested after slaughter recently, it was found that only 20% were infected with B. *abortus.* If one were to base calculations on relative numbers and use 2% of 18,000 for elk (360 elk) and 20% on 2000 for bison (400 bison), one could say that the relative qualitative risk of infection to cattle is the same for elk and bison.

EPA acknowledges that the percentages used for elk were generated using a different method than for bison and are thus may somewhat overestimate the number of seropositive elk. At the same time, the 20% is high in that it included males and females and only females can transmit the disease.

7. Based upon information in the NRC report, should vaccination of cattle be considered as an alternative? The NRC report states that vaccination of cattle is the most cost effective and workable method of reducing the risk of transmission of brucellosis to cattle: "Given the difficulties of vaccinating bison, the most workable method of reducing the risk of transmission of brucellosis from bison and elk to cattle in the GYA is vaccination of cattle. This program is the most cost-effective way of reducing potential transmission from wildlife in the short term.**"**[14]

This EPA comment remains the same for the FEIS. EPA acknowledges that the modified preferred alternative includes cattle vaccinations as part of its preferred alternative. The comment remains the same because it appears that the NRC report recommends that a vaccination program would be an effective approach to solving the brucellosis transmission problem in the short term. EPA suggest that an alternative using cattle vaccination exclusively should have been developed.

8. The NRC report further states, "Decisions to intervene should be supported by clear and compelling evidence and a consensus of experts that they are necessary."[15] It also states, "Obviously, the knowledge and technical capability are available to manage bison and elk to stabilize their numbers inside YNP [Yellowstone National Park] at some upper limit. The important question, therefore, is not whether we can, but whether we should do so."

This comment remains the same for the FEIS. The last sentence of the paragraph was originally included in our comments, because it focuses on one of the main concerns, the use of lethal measures for controlling bison movement onto public lands adjacent to Yellowstone National Park.

9. EPA acknowledges that Montana has legitimate and serious concerns about its brucellosis-free status and the effect that status could have on the livestock sector of the Montana economy.

This comment also remains the same for the FEIS.

10. The Animal and Plant Health Inspection Service (APHIS) should initiate a NEPA review of their policy on brucellosis-free status. This review would be on a national scale. This suggestion has its

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[14]National Research Council, Brucellosis in the Greater Yellowstone Area. 1998. 115 pp.

[15]National Research Council, Brucellosis in the Greater Yellowstone Area. 1998. 118 pp.

basis in the example cited in the DEIS: "Since Montana producers export a majority of their commodity to other states and to international markets, the perception of diseased animals could impede producers from around Montana from marketing livestock. For instance, during the 1996-1997 winter the state of Oregon imposed restriction on the movement of untested livestock from Montana into Oregon."[16] This example supports the need for a national dialogue on this issue.

APHIS appreciates the U.S. Environmental Protection Agency comments and agrees that a nationwide review of the brucellosis eradication program might be useful in reviewing past performance and in developing future strategies. However, even if begun today, such a review would not be completed in time to provide a framework within which to evaluate this action. (Volume two, page 273, FEIS)

EPA appreciates APHIS' consideration of our recommendation. We agree that if this process comes to a close in the near future that a NEPA review of the brucellosis eradication program will not be useful for this action. However, it might be helpful to initiate it soon, because it is our understanding that this will be an ongoing issue in the future and a new policy may allow for a different approach toward bison management in the future. Also, the bison plan could be amended in the future as a result of a new APHIS policy.

11. Another supporting reason for an open discussion of the APHIS policy of brucellosis-free status is the level of concern about accepting APHIS' low risk definition of brucellosis transmission among Montana's livestock industry. This is further supported in that APHIS has indicated that this definition will not threaten Montana's brucellosis-free status, yet the level of concern remains. The low risk definition includes bulls, yearlings, calves and cows with their new-borns.

EPA's comment remains the same here and is presented in the context of our response in the above concern.

12. **The modified preferred alternative incorporates the concept of adaptive management in the plan. EPA supports this approach, but recommends that any program of adaptive management must be linked with a process of independent science review. The purpose of the independent science review is to guide bison/elk management decisions as new scientific information is gained over time from research and monitoring efforts.**

13. **EPA recommends that the basis upon which the tolerance level was set (100 bison) in the management areas be provided in the ROD.**

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[16]National Park Service, Draft Environmental Impact Statement For The Interagency Bison Management Plan For The State Of Montana And Yellowstone National Park. 1998. 25 pp.